LINDY®

CONNECTION PERFECTION

HDMI 4x1 PiP Video Processor

User Manual	***English***
Benutzerhandbuch	***Deutsch***
Manuel Utilisateur	***Français***
Manuale	***Italiano***



No. 38130

www.lindy.com

Tested to Comply with
FCC Standards
For Home and Office Use!

Introduction

Thank you for purchasing the LINDY HDMI 4x1 PiP Video Processor. The PiP Video Processor allows the signals from four different sources to be integrated for display on a single monitor, for viewing in Multi-View, Picture in Picture, Overlay (Chromakey) layouts.

This flexible feature rich product has been designed to be used in a number of different applications, such as:

- Public Advertisement
- Digital Presentation
- Broadcasting & Control
- CCTV, Surveillance & Control
- Conference & Meeting Room

Package Contents

- HDMI 4x1 PiP Video Processor
- IR Remote Control
- Multi-Country 12V 3A Power Supply (UK/EU/US/AUS)
- Driver CD
- This manual

Features

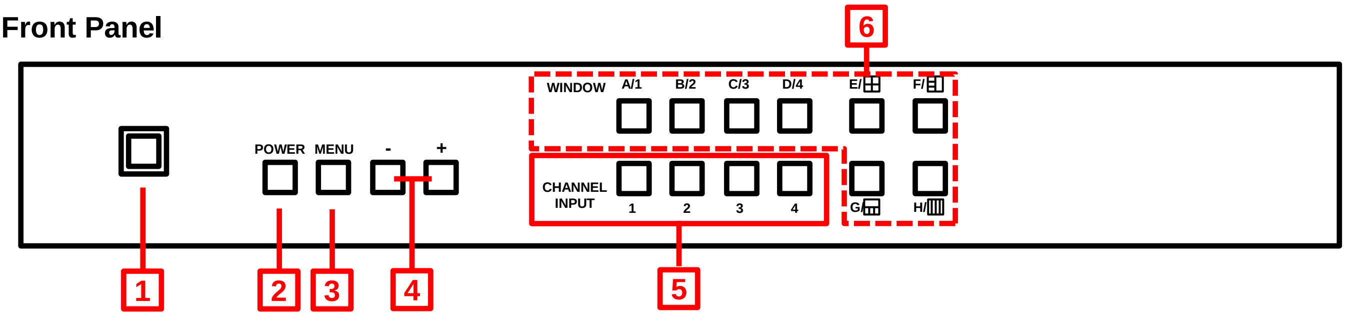
- Allows 4 HDMI Inputs to be shown on a single HD displays in 4 modes
  - PiP Mode: Picture in Picture
  - Multi-Window Mode: View 2 – 4 Inputs simultaneously
  - Overlay Mode: Picture On Picture with Chromakey
- Seamless switching between HDMI sources
- User definable channel size and position adjustment
- Independent audio selection
- Controlled via On-panel controls, IR Remote, RS-232 and Telnet
- Adjustable picture contrast, brightness, saturation and hue
- Memory function to store 4 user determined configurations
- Can be used with LINDY HDMI extenders to reach a remote display

Specification

- Input ports: 4 x HDMI Female
- Input resolution: 480i – 1080p
- Output ports: 1 x HDMI Female
- Output resolution: 1080p
- Audio support: LPCM 2CH, 6CH, 8CH, AC3, DTS, Dolby Digital Plus, Dolby TrueHD & DTS-HD
- Control Ports: RJ45 (Telnet) & Serial 9 Way Male (RS-232)
- Video bandwidth: 225MHz/6.75Gbps
- Power consumption: 15W
- Weight: 2.95 kg
- Dimensions: 436x247x44mm (WxDxH)

Overview & Operation

Front Panel



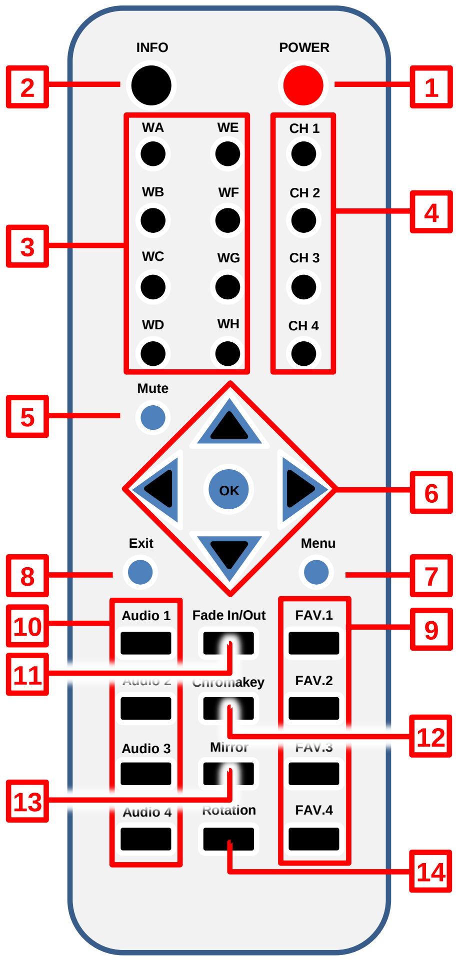
1. **IR Window**
   Receives IR commands from the supplied IR Remote
2. **Power**
   Turn the Switch On/Off
3. **Menu**
   - Press to launch the OSD menu
   - Press to make a menu selection in the OSD
4. **-/+ Buttons**
   Use these buttons to move up and down in the OSD
5. **Channel Input (1 – 4) Selection**
   - Use the Channel Input buttons to cycle through the available Inputs for each Channel; use Input Channel button 1 to control Channel 1, Input Channel button 2 to control Channel 2 and so on. For example if you have selected Channel 1, by default this will display Input 1, by pressing Channel Input button 1 the Input will switch to Input 2, further presses will move the Input to 3 to 4 and then back to 1.
6. **Window Mode (A – H)**
   - Window A – Only the Input selected under Channel 1 will be displayed.
   - Window B – Only the Input selected under Channel 2 will be displayed.
   - Window C – Only the Input selected under Channel 3 will be displayed.
   - Window D – Only the Input selected under Channel 4 will be displayed.
   - Window E – The Inputs selected under Channels 1 – 4 will be displayed in a 2 x 2 grid.
   - Window F – The Input selected under Channel 4 will be displayed on the right half of the screen, the Inputs selected for Channels 1 – 3 will be displayed in on the left half of the screen.
   - Window G – The Input selected under Channel 1 will be displayed full screen, with the Inputs selected under Channels 2 – 4 will show (Picture in Picture) across the bottom of the screen.
   - Window H – the Inputs selected under Channels 1 – 4 will be displayed in a 4 x 1 grid.

Rear Panel



1. **HDMI In 1 – 4**
   Connect your HDMI sources devices such as PC, Blu-ray etc to these ports
2. **HDMI Out**
   Connect your HDMI display to this port
3. **Control**
   Connect to an Ethernet network for Telnet control
4. **USB Service Only**
   Reserved for Factory use only
5. **RS-232**
   For connection to a PC/Notebook or Remote Control Processing unit
6. **DC 12V**
   Connect the supplied 12V power supply here

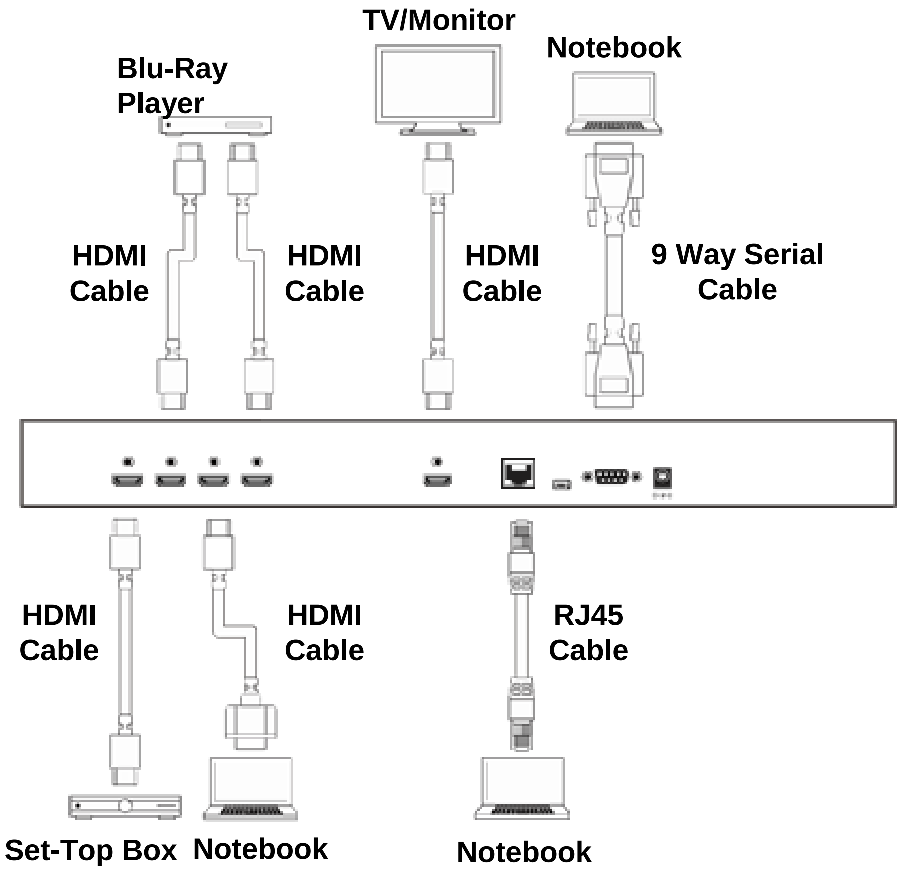
Remote Control



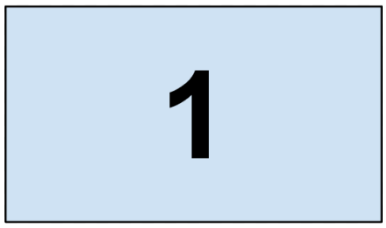
1. **Power**
   Turn the Switch on/off
2. **Info**
   Press to display the Switch's current output setting
3. **Window Mode (A – H)**
   Provides the same function as the front panel buttons
4. **Channel Input (1 – 4)**
   Provides the same function as the front panel buttons
5. **Mute**
   Press to Mute audio playback
6. **Navigation/Selection Buttons**
   Press to navigate the OSD and make selections
7. **Menu**
   Press to enter the OSD menu
8. **Exit**
   Press to exit the OSD menu
9. **FAV. (1 – 4)**
   Recalls the settings saved to the corresponding save location
10. **Audio Selection**
    Press to select audio from Inputs 1 – 4
11. **Fade In/Out**
    Press this button to switch the Fade-in-out function on/off
12. **Chromakey***
    Press to enter Chroma mode, where CH1 is the background and CH2 is the top image
13. **Mirror***
    Press to display a mirror image of the selected input
14. **Rotate***
    Press to rotate the input: 90^0 Right, 90^0 Left and 180^0 (Flip)

*These features are only available in Window modes A – D

Connection Diagram



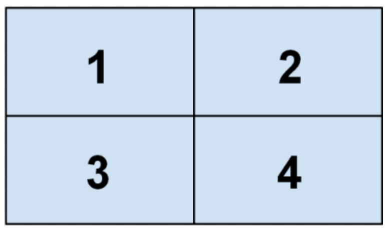
Video Output Modes



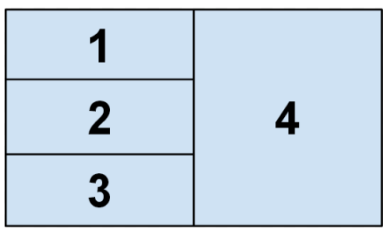
Window A – The Input selected for Channel 1 will be displayed.
Window B – The Input selected for Channel 2 will be displayed.
Window C – The Input selected for Channel 3 will be displayed.
Window D – The Input selected for Channel 4 will be displayed.

The example shows **Window A** selected, so the Input selected for Channel 1 is displayed.

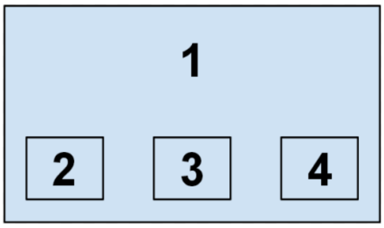
Window E – The Inputs selected under Channels 1 – 4 will be displayed in a 2 x 2 grid.



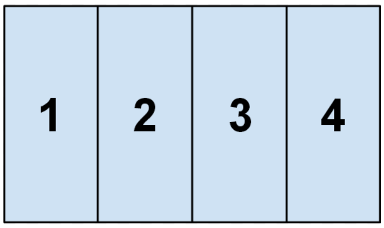
Window F – The Input selected under Channel 4 will be displayed on the right half of the screen, the Inputs selected for Channels 1 – 3 will be displayed in on the left half of the screen.



Window G – The Input selected under Channel 1 will be displayed full screen, with the Inputs selected under Channels 2 – 4 will show (Picture in Picture) across the bottom of the screen.



Window H – the Inputs selected under Channels 1 – 4 will be displayed in a 4 x 1 grid.



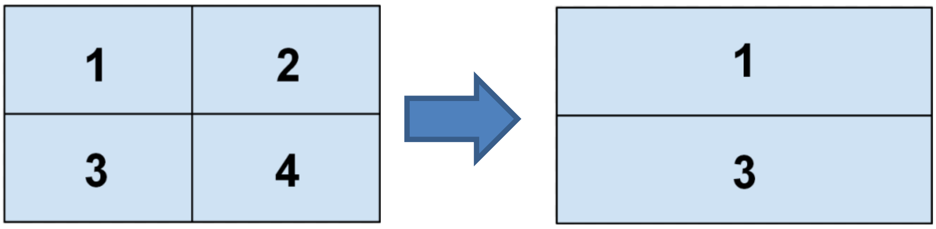
Multi-Window Adjustment

In each of the multi-window options (E-H) above it is possible to adjust the size and position of each window, and even to switch windows off. To begin select the window option which is closest to your desired layout and then enter the menu using the remote control. Now select Windows Setup and you will be presented with the choice to adjust each Channel 1-4 and the option to Store or Recall Favourites configurations.

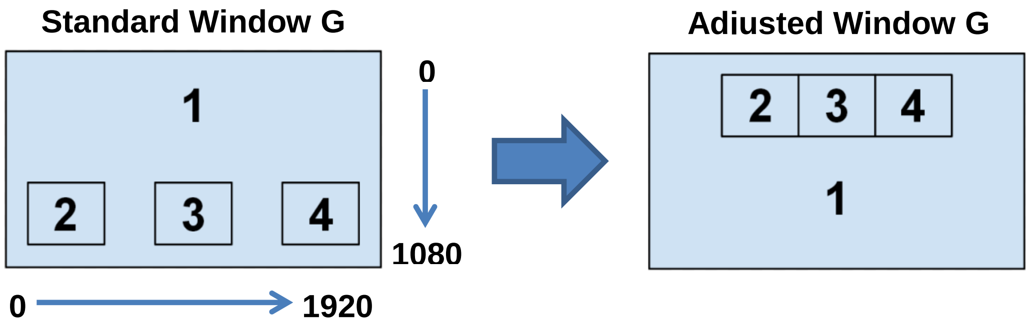
To adjust the layout begin by selecting a channel, by highlighting one of the channels and pressing OK. You can then adjust the vertical and horizontal size and position of the window using the Size and Position menu options, whilst you can turn the channel on or off using the Image Output menu. Adjustments can be made in single pixel, ten pixel and one hundred pixel blocks giving you absolute control of the window; if you make an error you can quickly return to the default value for the window by selecting Window Reset.

As an example using a 1080p display starting with Window E selected, by adjusting the size of channels 1 and 3 to 1920 pixels wide by 540 pixels high and turning off the output of channels 2 and 4 you would achieve the layout below.

Standard Window E **Adiusted Window E**



When adjusting the position of a channel the horizontal position is from left to right of the display, starting from the left edge of the channel. The vertical position is from top to bottom of the display, starting at the top edge of the channel. The following example shows the default layout for each channel in Window G and an adjusted version made by changing the values of each channel.



		Standard	Adjusted
Channel 1	**Horizontal**	0000	0000
	Vertical	0000	0000
Channel 2	**Horizontal**	0105	0210
	Vertical	0700	0120
Channel 3	**Horizontal**	0710	0710
	Vertical	0700	0120
Channel 4	**Horizontal**	1315	1210
	Vertical	0700	0120

Chromakey

This special function is designed for picture on picture overlapping. It works using Channel 1 as the background and Channel 2 as the top layer. Channel 2 the top layer's background colour is usually a single colour which can be easily removed using the OSD Menu. The RGB settings for Channel 2 video can be adjusted to determine where the layer will be transparent making Channel 1 visible. When input 1 or 2 has no source connection a warning message will appear on OSD.

RS-232, Telnet & OSD Control

RS-232 Protocols

HDMI PiP Switch	
PIN	**Assignment**
1	NC
2	Tx
3	Rx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Remote Control	
PIN	**Assignment**
1	NC
2	Rx
3	Tx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Baud Rate	115200bps
Data Bit	8
Parity	None
Flow Control	None
Stop Bit	1

RS-232 & Telnet Commands

Use TCP/IP (Port 23) for Telnet communication.
All commands are case–sensitive and will not be executed unless followed with a carriage return

Command	Action
POW000	OFF
POW001	ON
WND001	Change to Window A
WND002	Change to Window B
WND003	Change to Window C
WND004	Change to Window D
WND005	Change to Window E
WND006	Change to Window F
WND007	Change to Window G
WND008	Change to Window H
CH1001	Change Channel 1 to Source 1
CH1002	Change Channel 1 to Source 2
CH1003	Change Channel 1 to Source 3
CH1004	Change Channel 1 to Source 4
CH2001	Change Channel 2 to Source 1
CH2002	Change Channel 2 to Source 2
CH2003	Change Channel 2 to Source 3
CH2004	Change Channel 2 to Source 4
CH3001	Change Channel 3 to Source 1
CH3002	Change Channel 3 to Source 2
CH3003	Change Channel 3 to Source 3
CH3004	Change Channel 3 to Source 4
CH4001	Change Channel 4 to Source 1
CH4002	Change Channel 4 to Source 2
CH4003	Change Channel 4 to Source 3
CH4004	Change Channel 4 to Source 4
MUT000	Mute Off
MUT001	Mute On
FAD000	Fade In-Out Off
FAD000	Fade In-Out Off

Command	Action
FAD001	Fade In-Out On
AUD001	Change Output Audio to Source 1
AUD002	Change Output Audio to Source 2
AUD003	Change Output Audio to Source 3
AUD004	Change Output Audio to Source 4
CHR000	Chromakey Function Off
CHR001	Chromakey Function On
MIR000	Mirror Function Off
MIR001	Mirror Function On
ROT000	Rotation Function Off
ROT001	Rotation Function R
ROT002	Rotation Function L
ROT003	Rotation Function Up-Side Down
SFA001	Store window format to FAV 1*
SFA002	Store window format to FAV 2*
SFA003	Store window format to FAV 3*
SFA004	Store window format to FAV 4*
RFA001	Recall window from FAV 1
RFA002	Recall window from FAV 2
RFA003	Recall window from FAV 3
RFA004	Recall window from FAV 4
IO1000	Channel 1 Image Off
IO1001	Channel 1 Image On
IO2000	Channel 2 Image Off
IO2001	Channel 2 Image On
IO3000	Channel 3 Image Off
IO3001	Channel 3 Image On
IO4000	Channel 4 Image Off
IO4001	Channel 4 Image On

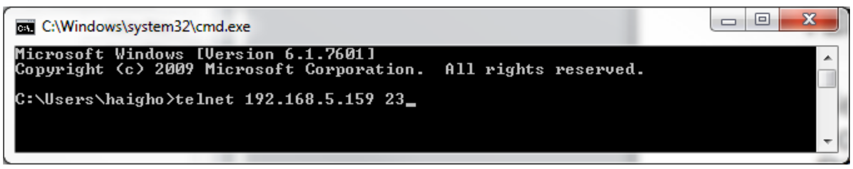
***** Cannot be executed when Window A – D are selected

Telnet Control

Before attempting to use telnet control, please ensure that both the Video Processor (via the 'CONTROL' port) and the PC/Laptop are connected to the same active network.

Open a Command Prompt on your computer type **telnet**, then a space, then the **IP address** of the Video Processor, then another space, then **23** and finally press **Enter**.

Note: The IP address of the Video Processor can be found under Ethernet Setup on the device's OSD menu. 23 is the TCP/IP port for Telnet.



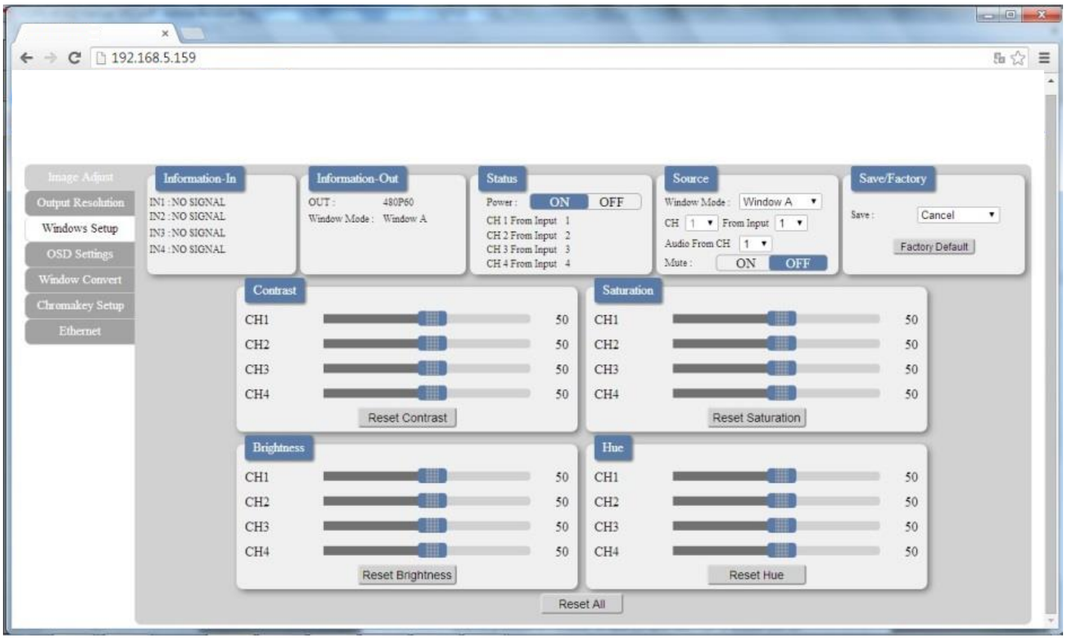
This will bring up the Telnet interface for the Video Processor. Type **?** to list all the available commands, please refer to the RS-232 & Telnet Commands section of this manual for a description of each command.

Type **IPCONFIG** to show the complete IP configuration of the Video Processor. To reset the IP, type **IPMODE** to switch between Static IP/DHCP.

Note: All the commands will be not executed unless followed by a carriage return. Commands are case-insensitive. If the IP is changed then the IP Address required for Telnet access will also need to be change accordingly. A power cycle is also required for every IP change.

Web GUI Control

On a PC/Laptop that is connected to the same active network as the Video Processor, open a web browser and type the device's IP address on the web address entry bar. The browser will display the device's Image Adjust, Output Resolution... etc, as shown below. Using this interface you can control the Video processor in just the same way as with the OSD, RS-232 and Telnet Controls.



Click on the **Ethernet tab** to reset the IP configuration. The system will ask for a reboot of the device every time any of the settings are changed. The IP address needed to access the Web GUI control will also need to be changed accordingly on the web address entry bar.

On-Screen-Display (OSD) Menu

Main Menu	1st Layer	2nd Layer	3rd Layer
Image Adjust	Brightness Adjust	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset	
		Menu Exit	
	Contrast Adjust	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset	
		Menu Exit	
	Hue Adjust	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset	
		Menu Exit	
	Saturation	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset	
		Menu Exit	
	Picture Reset		
	Menu Exit		
Window Setup	Channel 1 Select	Size	CH 1 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 1 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off	
		Window Reset	
		Menu Exit	
	Channel 2 Select	Size	CH 2 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit

Main Menu	1st Layer	2nd Layer	3rd Layer
Window Setup (Continued)	Chanel 2 Select (Continued)		Height Ten
			Height Hundred
		Position	CH 2 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off	
		Window Reset	
		Menu Exit	
	Channel 3 Select	Size	CH 3 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 3 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off	
		Window Reset	
		Menu Exit	
	Channel 4 Select	Size	CH 4 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 4 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off	
		Window Reset	
		Menu Exit	
	FAV. Store	FAV 1 Store On/Off/OK	
		FAV 2 Store On/Off/OK	
		FAV 3 Store On/Off/OK	
		FAV 4 Store On/Off/OK	

Main Menu	1st Layer	2nd Layer	3rd Layer
Window Setup (Continued)	FAV. Recall	FAV 1 Recall On/Off/OK	
		FAV 2 Recall On/Off/OK	
		FAV 3 Recall On/Off/OK	
		FAV 4 Recall On/Off/OK	
	Menu Exit		
Window Convert	Channel 1 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset	
		Menu Exit	
	Channel 2 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset	
		Menu Exit	
	Channel 3 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset	
		Menu Exit	
	Channel 4 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset	
		Menu Exit	
Chromakey Setup	Minimum for R 000 - 255		
	Maximum for R 000 – 255		
	Minimum for G 000 - 255		
	Maximum for G 000 – 255		
	Minimum for B 000 - 255		
	Maximum for B 000 – 255		
	Switch On/Off		
	Menu Exit		
Ethernet Setup	IP Mode	Static/DHCP	
	Static Set	IP/Mask/Gate	
	Byte 1 High	XXX	000 – 255
	Byte 2	XXX	000 – 255
	Byte 3	XXX	000 – 255
	Byte 4	XXX	000 – 255
	Re-Link	Yes/No	
	Exit		
	Static/DHCP IP	Linked/Not Linked	
	IP	IP/Mask/Gate	
	Mask	XXX.XXX.XXX.XXX	
	Gate	XXX.XXX.XXX.XXX	
	Mac	XXX.XXX.XXX.XXX	
Sys Reset	Yes/No		
Information	FW/Version		
Menu Exit			

Einführung

Dieser HDMI 4x1 PiP Video Prozessor kombiniert die HDMI Eingangssignale von 4 HDMI Eingängen und gibt sie in verschiedenen Modi auf einem einzelnen HDMI Ausgang wieder aus. Er ist weitestgehend frei konfigurierbar und biete eine Vielzahl von Darstellungsoptionen. Er unterstützt die Quadranten-Darstellung, die Bild-in-Bild (PiP – Picture in Picture) sowie Overlay Green-Boxing (Chromakey) Darstellung.

Mit seiner Flexibilität ist er ideal geeignet in den Bereichen Public Advertising, Digitale Präsentationen, Video Broadcasting und Steuerung, CCTV Überwachung sowie Konferenzraumsteuerung.

Lieferumfang

- HDMI 4x1 PiP Video Prozessor
- IR Fernbedienung
- Netzteil Multi-Country 12V 3A (mit Steckervorsätzen für UK/EU/US/AUS)
- Software CD
- Dieses Handbuch

Eigenschaften

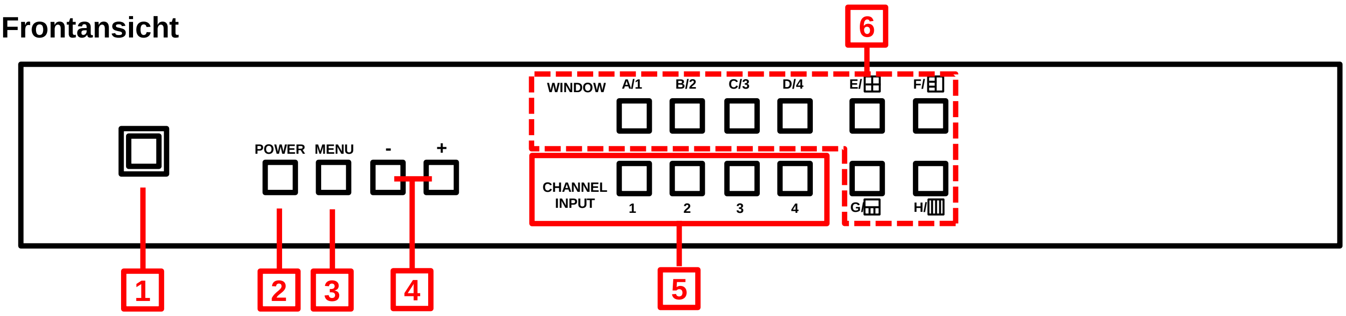
- Erlaubt 4 HDMI Eingänge auf einem HDMI Display in 4 unterschiedlichen Modi auszugeben:
    - PiP Modus: Bild-in-Bil / Picture in Picture
    - Multi-Window Modus: 2 – 4 Eingänge simultan anzeigen
    - Overlay Modus: Bild über Bild mit Chromakey Überlagerung
- Unterbrechungsloses Umschalten zwischen HDMI Quellen
- Benutzer definierbare Fenstergröße und -position
- Unabhängige Auswahl des Audiokanales
- Steuerbar über auf Tasten am Switch, IR-Fernbedienung, RS-232 und Telnet
- Einstellbarer Kontrast, Helligkeit, Sättigung und Farbton
- Speicherplätze zum Speichern von 4 Benutzereinstellungen
- Kann mit LINDY HDMI Extendern verwendet werden

Spezifikationen

- Eingangsanschlüsse: 4 x HDMI Buchse
- Eingangsauflösung: 480i – 1080p
- Ausgangsanschlüsse: 1 x HDMI Buchse
- Ausgangsauflösung: 1080p
- Audio-Unterstützung: LPCM 2CH, 6CH, 8CH, AC3, DTS, Dolby Digital Plus, Dolby TrueHD & DTS-HD
- Fernbedienungseingänge: RJ45 (Telnet) & serieller 9-Pol (RS-232) Anschlussstecker
- Video-Bandbreite: 225MHz / 6.75Gbps
- Leistungsaufnahme: ca. 15W
- Gewicht: ca. 3 kg
- Abmessungen: ca. 436x247x44mm (BxTxH)

Installation

Frontansicht



1. **IR Fernbedienungsfernster**
   Der Empfänger für die IR Fernbedienungssignale befindet sich hinter diesem Fenster

2. **POWER**
   EIN/AUS-Schalter

3. **MENU**
   - Druck auf diese Taste ruft das OSD Menü auf dem Bildschirm auf
   - Druck auf diese Taste bei geöffnetem OSD Menü wählt den aktuellen Menüpunkt aus

4. **-/+ Tasten**
   Navigationstasten für Bedienung des OSD Menüs

5. **Channel Input (1 – 4) Tasten**
   - Verwenden Sie die Channel Input / Kanal-Eingangs-Tasten, um für jeden Kanal den zugehörigen Eingangsport festzulegen; verwenden Sie Kanaltaste 1 um den Eingangsport für Kanal 1 festzulegen, 2 für 2, usw.
   - Zum Beispiel: für Kanal 1 wird standardmäßig der Eingang 1 angezeigt; wenn Sie die Kanal 1 Taste erneut drücken wird Eingang 2 auf Kanal 1 gelegt, bei weiterem Drücken Eingang 3, dann 4 und dann wieder 1.

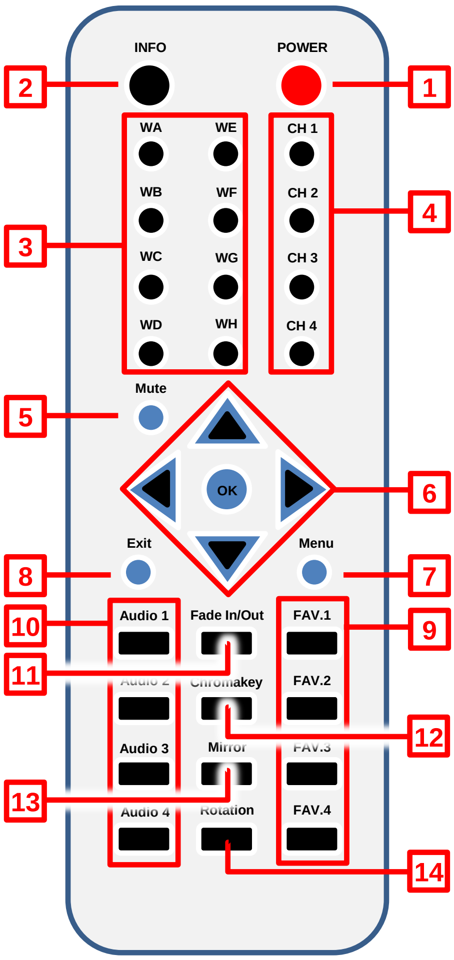
6. **WINDOW / Fenstermodus (A – H)**
   - **Window A** – Nur das Eingangssignal von Eingang 1 wird angezeigt.
   - **Window B** – Nur das Eingangssignal von Eingang 2 wird angezeigt.
   - **Window C** – Nur das Eingangssignal von Eingang 3 wird angezeigt
   - **Window D** – Nur das Eingangssignal von Eingang 4 wird angezeigt
   - **Window E** – Quadranten-Darstellung - Alle 4 Eingangssignale werden als 2x2 Signal dargestellt.
   - **Window F** – Eingangssignal 4 wird auf der rechten Seite des Monitors angezeigt, die Eingänge 1 bis 3 auf der linken Seite jeweils übereinander.
   - **Window G** – Kanal 1 wird als Vollbild dargestellt, die Kanäle 2 bis 4 als PiP an der Unterseite des Bildschirms verteilt.
   - **Window H** – Die Kanäle 1 bis 4 werden nebeneinander in 4 Fenstern dargestellt

Rückansicht



1. **HDMI In 1 – 4**
   Schließen Sie hier Ihre HDMI Signalquellen an
2. **HDMI Out**
   Schließen Sie hier Ihre HDMI Display an
3. **Control**
   RJ45 Anschluss für Ethernet und Telnet Bedienung
4. **USB Service Only**
   Reserviert für Firmware Update
5. **RS-232**
   Serieller RS-232 Anschluss für Fernsteuerung
6. **DC 12V**
   Anschluss für das Netzteil

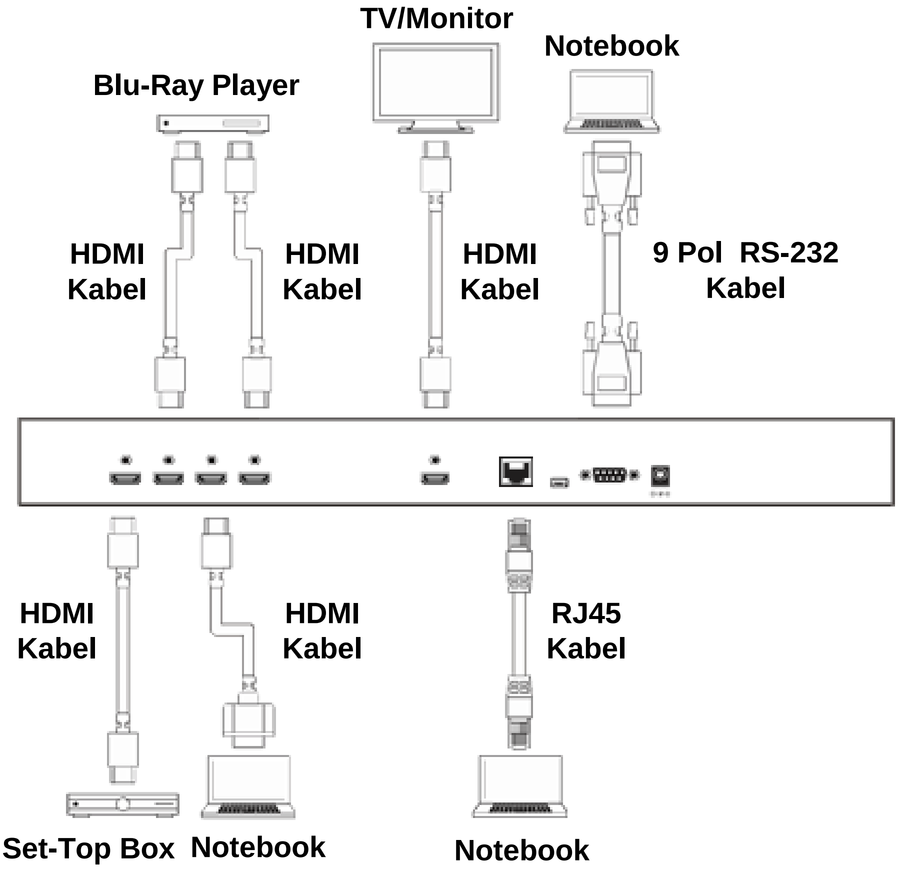
Fernbedienung



1. **Power**
   Switch EIN/AUS schalten
2. **Info**
   Zeigt die aktuell gewählte Ausgabeeinstellung an
3. **Window Mode (A – H)**
   Gleiche Funktion wie Bedientasten an der Frontblende
4. **Channel Input (1 – 4)**
   Gleiche Funktion wie Bedientasten an der Frontblende
5. **Mute**
   Schaltet die Audioausgabe Stumm
6. **Navigation/Selection Buttons**
   Navigationstasten für OSD Bedienung
7. **Menu**
   Ruft das OSSD Menü auf
8. **Exit**
   Schließt das OSD Menü
9. **FAV. (1 – 4)**
   Wechselt zu einer der 4 Voreinstellungen
10. **Audio Selection**
    Wechselt zwischen den Audiokanälen 1 – 4
11. **Fade In/Out**
    Schaltet die Fade-in-out Funktion an/aus
12. **Chromakey***
    Ruft den Chroma Modus auf mit Kanal 1 als Hintergrund und Kanal 2 als Vordergrund
13. **Mirror***
    Ruft das Spiegelbild des gewählten Kanales auf
14. **Rotate***
    Dreht das Eingangssignal: 90^0 Rechts, 90^0 Links und 180^0 (Überkopf)

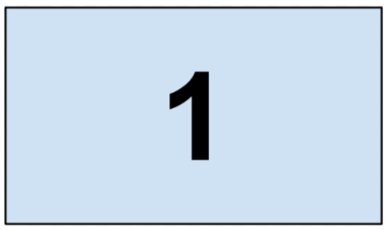
***Die mit * gekennzeichneten Funktionen sind nur in den Einstellungen** Window A – D **verfügbar**

Anschlussdiagramm – Beispiel



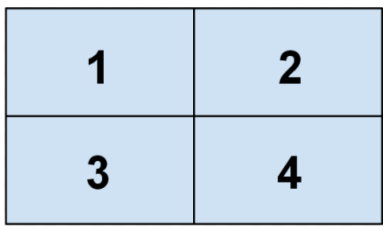
Video Output Modes

- **Window A** – Nur das Eingangssignal von Eingang 1 wird angezeigt.
- **Window B** – Nur das Eingangssignal von Eingang 2 wird angezeigt.
- **Window C** – Nur das Eingangssignal von Eingang 3 wird angezeigt.
- **Window D** – Nur das Eingangssignal von Eingang 4 wird angezeigt.

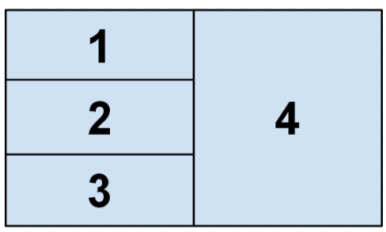


Das Beispiel zeigt **Window A** ausgewählt, nur Eingang 1 wird angezeigt.

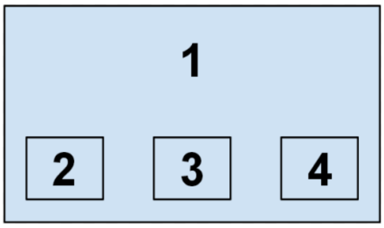
Window E – Die Eingänge 1 – 4 werden als 2x2 Quadranten-Darstellung angezeigt.



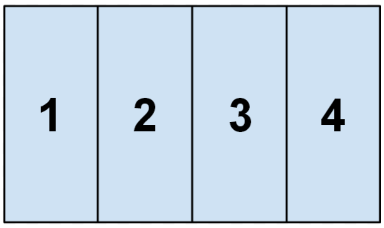
Window F – Der Eingang Channel 4 wird auf der rechten Seite des Monitors angezeigt, die Eingänge Channel 1 bis 3 auf der linken Seite jeweils übereinander.



Window G – Eingangssignal Channel 4 wird als Vollbild dargestellt, die Kanäle 2 bis 4 als PiP an der Unterseite des Bildschirms verteilt.



Window H – Die Eingangssignale Channels 1 – 4 werden nebeneinander in 4 x 1 Form dargestellt.



Multi-Fenster-Einstellungen

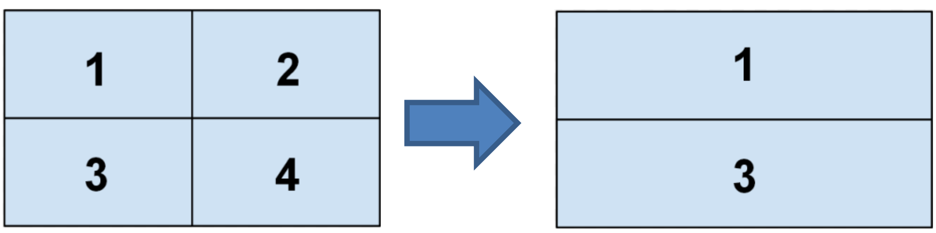
In allen Multi-Fenster-Einstellungen (E-H) ist es möglich, die Größe und Position der einzelnen Fenster anzupassen und sogar Fenster ausschalten. Um dies einzustellen, wählen Sie zwischen einer der **Window E-H** Einstellungen, je nachdem welche am nächsten zu Ihrem gewünschten Layout ist. Rufen Sie das OSD-Menü mit der Fernbedienung auf und wählen Sie den Fenster-Setup E-H. Wählen Sie mit Channel 1-4 die Eingänge zu den Kanälen / Channels. Und speichern Sie Ihre Einstellung unter einem der 4 Presets.

Beginnen Sie die Eingangssignale/-ports den Kanälen / Channels zuzuordnen: Wählen Sie einen Channel und sehen Sie den zugehörigen Eingangsport, durch wiederholtes Drücken der Channel Taste wechseln Sie die Eingangsports durch (siehe Vorseite), durch drücken der OK Taste speichern Sie.

Sie können dann die vertikale und horizontale Größe und Position des Fensters über die SIZE und POSITION Menüoptionen anpassen; und sie können die Bildausgabe ein- oder ausschalten über das IMAGE OUTPUT Menü. Anpassungen können in einzelnen Pixel, zehn Pixel- und 100 Pixel-Blöcken erfolgen, was Ihnen die absolute Kontrolle über die Fenster gibt; Wenn Sie einen Fehler machen, können Sie schnell auf den Standardwert für das Fenster zurückkehren, indem Sie WINDOWS RESET drücken.

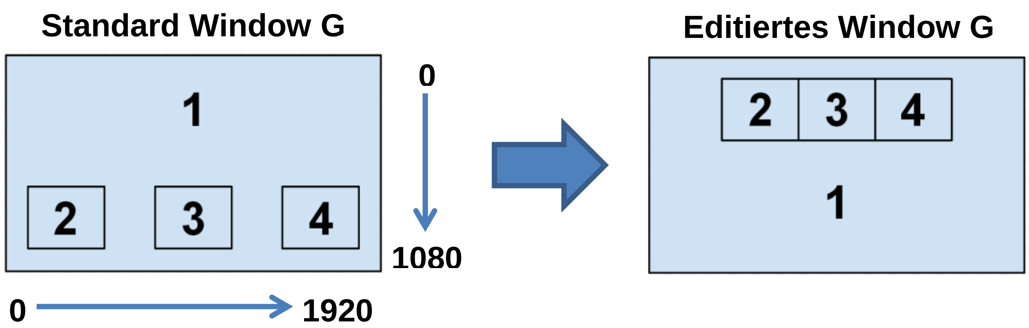
Beispiel 1 (Signale mit 1080p Auflösung (1920x1080), beginnend mit der Einstellung **WINDOW E)**: durch Anpassen der Größe von Kanal 1 und 3 auf 1920 Pixel Breite und 540 Pixel Höhe, und deaktivieren der Ausgabe der Kanäle 2 und 4, erhalten Sie das Layout wie unten angezeigt.

Standard **Window E** Editiertes **Window E**



Die die horizontale Position zählt von links nach rechts auf dem Displays, ausgehend vom linken Rand des Kanals. Die vertikale Position zählt von oben nach unten im Display, beginnend mit dem oberen Rand des Kanals.

Das folgende Beispiel 2 zeigt das Standardlayout für **Window G** sowie eine editierte Version, die durch eine Änderung der Werte jedes einzelnen Kanals erreicht wird. Es müssen hier nur die oberen linken Eckpunkte des jeweiligen Channel 2-4 editiert werden; die Größe ist durch die WINDOW G Voreinstellung vorbelegt und nicht verändert.



		Standard	Editiert
Channel 1	**Horizontal**	0000	0000
	Vertikal	0000	0000
Channel 2	**Horizontal**	0105	0210
	Vertikal	0700	0120
Channel 3	**Horizontal**	0710	0710
	Vertikal	0700	0120
Channel 4	**Horizontal**	1315	1210
	Vertikal	0700	0120

Chromakey

Diese spezielle Funktion bezieht sich auf Bild-über-Bild Überlappungen. Es funktioniert mit Kanal 1 als Hintergrund und Kanal 2 als der darüber liegenden Schicht. Üblicherweise hat die obere Schicht Kanal 2 in der Regel eine einzige Farbe als Hintergrundfarbe, diese kann über das OSD-Menü leicht entfernt werden, so dass dort dann Kanal 1 sichtbar wird. Die RGB-Einstellungen für Kanal 2 Video können angepasst werden, um festzulegen, wo Kanal 2 transparent wird und Kanal 1 sichtbar wird. Sowie Eingang 1 oder 2 hat Eingangssignal bekommt erscheint eine Warnmeldung per OSD.

Weitere Detaileinstellungen und Ethernet Telnet / RS232 / Browser/GUI Fernbedienung

Der Video Processor kann auch über Ethernet per Webbrowser oder Telnet bzw. über RS232 gesteuert werden. Bitte beachten Sie die ausführlichen Erläuterungen und Einstellungstabellen im englischen Teil dieses Handbuches und nehmen Sie die Einstellungen entsprechend per Fernbedienung und OSD bzw. Browser vor.

Introduction

Merci d'avoir choisi le HDMI 4x1 PiP Video Processor LINDY. Le PiP Video Processor permet aux signaux de quatre différentes sources d'être intégrés dans l'affichage d'un seul écran, pour une visualisation en Multi-View, Picture in Picture, Overlay (Chromakey).
Ce produit riche de fonctionnalités a été conçu pour être utilisé dans différents cas de figures et applications, tels que:

- Affichage publicitaire
- Présentation numérique
- Diffusion & Contrôle
- CCTV, Surveillance & Contrôle
- Conférence & salle de réunion

Contenu de l'emballage

- HDMI 4x1 PiP Video Processor
- Télécommande IR
- Alimentation multi-pays 12V 3A (UK/EU/US/AUS)
- CD de pilotes
- Ce manuel

Caractéristiques

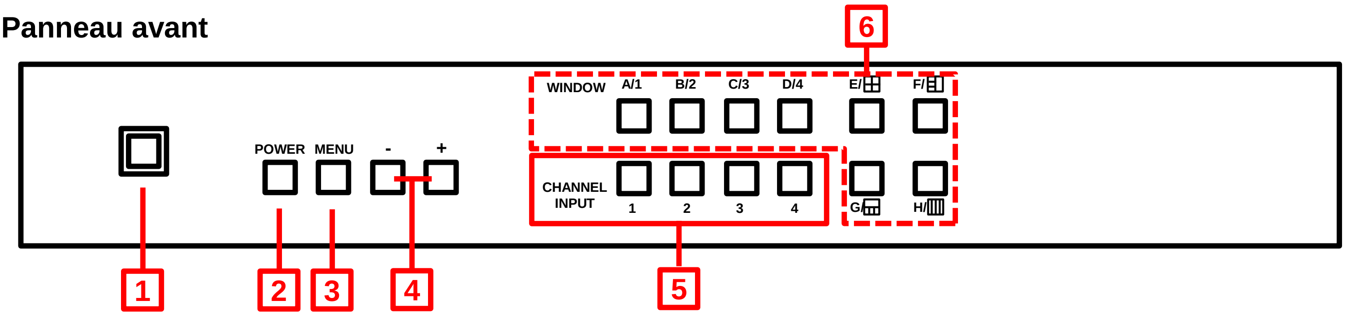
- Allows 4 HDMI Inputs to be shown on a single HD displays in 4 modes
  - Mode PiP: Picture in Picture
  - Mode multifenêtres: affichage de 2 – 4 entrées simultanément
  - Mode Overlay: Picture On Picture avec Chromakey
- Commutation transparente entre les sources HDMI
- Taille de canal et réglage de position définissable par utilisateur
- Sélection audio indépendante
- Contrôlé via contrôle On-panel (boutons en façade), télécommande IR, RS-232 et Telnet
- Réglage contraste, luminosité, saturation et teinte
- Fonction mémorisation pour sauvegarder 4 configurations utilisateur
- Peut être utilisé avec les extenders HDMI LINDY, pour atteindre un affichage déporté

Spécifications

- Ports d'entrées: 4 x HDMI femelle
- Résolutions en entrée: 480i – 1080p*
- Ports de sortie: 1 x HDMI femelle
- Résolution en sortie: 1080p
- Prise en charge audio: LPCM 2CH, 6CH, 8CH, AC3, DTS, Dolby Digital Plus, Dolby TrueHD & DTS-HD
- Ports de contrôle: RJ45 (Telnet) & Série DB-9 mâle (RS-232)
- Bande passante vidéo: 225MHz/6.75Gbit/s
- Puissance: 15W
- Poids: 2.95 kg
- Dimensions: 436x247x44mm (LxlxH)

Vue d'ensemble & Utilisation

Panneau avant



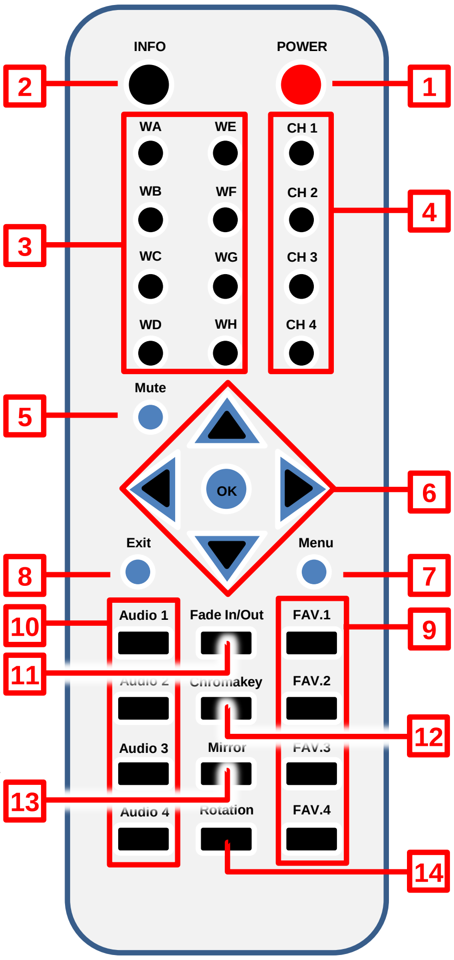
1. **Fenêtre IR**
   Reçoit les commandes IR provenant de la télécommande incluse dans la livraison
2. **Power**
   Commute le Switch On/Off
3. **Menu**
   - Appuyez pour lancer le menu OSD
   - Appuyez pour faire une sélection de menu dans l'OSD
4. **Boutons -/+**
   Utilisez ces boutons pour la navigation haut/bas dans l'OSD
5. **Sélection de canaux (Channel Input 1 – 4)**
   - Utilisez les boutons Channel Input pour naviguer entre les entrées disponibles pour chaque canal; utilisez le bouton Input Channel 1 pour contrôler le canal 1, Input Channel 2 pour contrôler le canal 2, etc. Par exemple, si vous avez sélectionné le canal 1, par défaut ceci affichera l'entrée 1, en appuyant le bouton Channel Input 1 l'entrée commutera sur l'entrée 2, d'autres appuis commuteront l'entrée sur 3, puis 4 et de retour sur 1.
6. **Mode fenêtre (Window Mode A – H)**
   - Window A – uniquement l'entrée sélectionnée sur le canal 1 s'affichera.
   - Window B – uniquement l'entrée sélectionnée sur le canal 2 s'affichera.
   - Window C – uniquement l'entrée sélectionnée sur le canal 3 s'affichera.
   - Window D – uniquement l'entrée sélectionnée sur le canal 4 s'affichera.
   - Window E – Les entrées sélectionnées sous les canaux 1 – 4 s'afficheront dans une grille 2 x 2.
   - Window F – L'entrée sélectionnée sur le canal 4 s'affichera sur la moitié droite de l'écran, les entrées sélectionnées pour les canaux 1 – 3 s'afficheront sur la moitié gauche de l'écran.
   - Window G – L'entrée sélectionnée sur le canal 1 s'affichera en plein écran, avec les entrées sélectionnées sous les canaux 2 – 4 qui s'afficheront (Picture in Picture) dans le bas de l'écran.
   - Window H – Les entrées sélectionnées sous les canaux 1 – 4 s'afficheront dans une grille 4 x 1.

Panneau arrière



1. **HDMI In 1 – 4**
   Connectez sur ces ports vos appareils sources HDMI tel que PC, Blu-ray etc
2. **HDMI Out**
   Connectez votre affichage HDMI sur ce port
3. **Control**
   Connectez ici votre réseau Ethernet pour le contrôle en Telnet
4. **USB Service Only**
   Réservé aux services constructeur uniquement
5. **RS-232**
   Pour la connexion à un PC/Notebook ou unité de contrôle distante
6. **DC 12V**
   Connectez ici l'alimentation 12V fournie

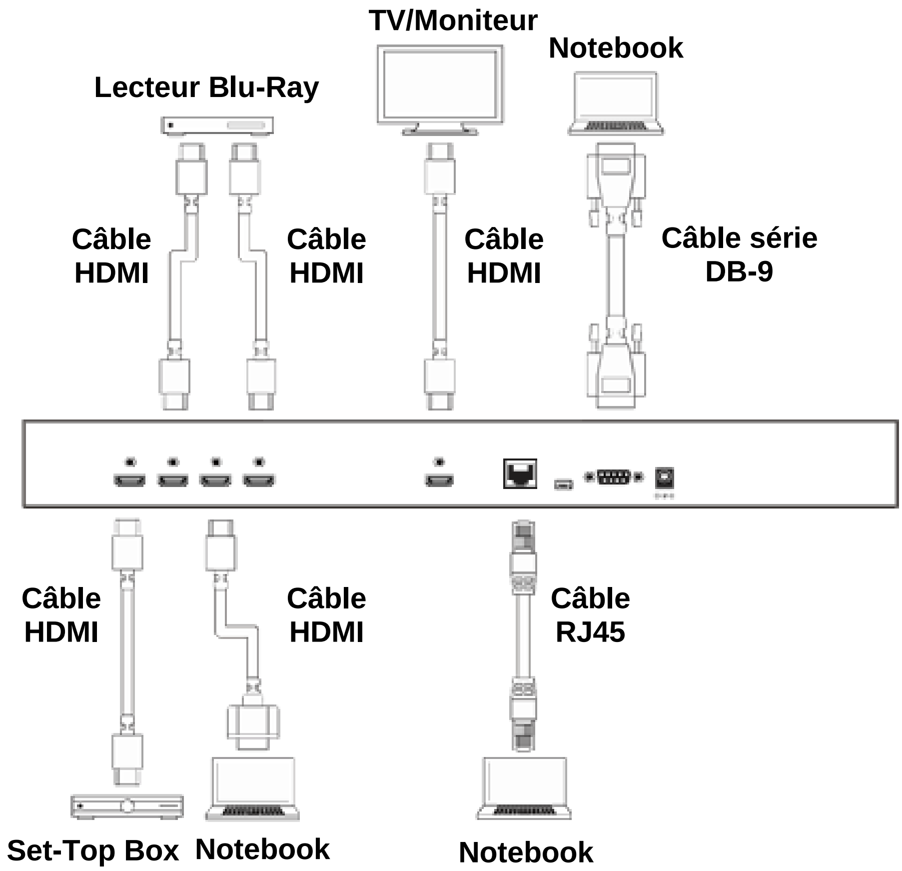
Télécommande



1. **Power**
   Commute le Switch sur on/off
2. **Info**
   Appuyez pour afficher les paramètres actuels du Switch
3. **Window Mode (A – H)**
   Fournit la même fonction que les boutons du panneau avant
4. **Channel Input (1 – 4)**
   Fournit la même fonction que les boutons du panneau avant
5. **Mute**
   Appuyez pour couper le son
6. **Boutons Navigation/Sélection**
   Appuyez pour naviguer dans l'OSD et faire une sélection
7. **Menu**
   Appuyez pour entrer dans le menu OSD
8. **Exit**
   Appuyez pour sortir du menu OSD
9. **FAV. (1 – 4)**
   Rappel les paramètres enregistrés à l'emplacement correspondant
10. **Sélection Audio**
    Appuyez pour sélectionner l'audio des entrées 1 – 4
11. **Fade In/Out**
    Appuyez ici pour commuter la fonction Fade-in-out on/off
12. **Chromakey***
    Appuyez pour entrer en mode Chroma, où CH1est le fond et CH2 est l'image supérieure
13. **Mirror***
    Appuyez pour afficher une image miroir de l'entrée sélectionnée
14. **Rotate***
    Appuyez pour pivoter l'entrée: 90^0 à droite, 90^0 à gauche et 180^0 (Flip)

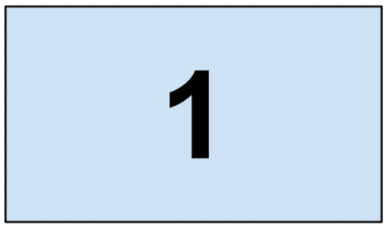
*Ces caractéristiques ne sont disponibles qu'en modes Window A – D

Schéma des connexions



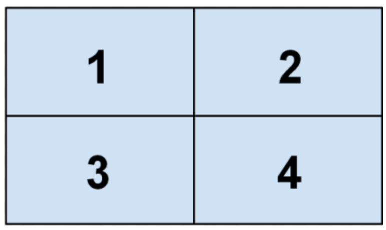
Modes de sorties vidéo

Window A – L'entrée sélectionnée pour Channel 1 s'affiche.
Window B – L'entrée sélectionnée pour Channel 2 s'affiche.
Window C – L'entrée sélectionnée pour Channel 3 s'affiche.
Window D – L'entrée sélectionnée pour Channel 4 s'affiche.

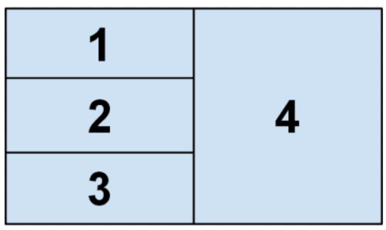


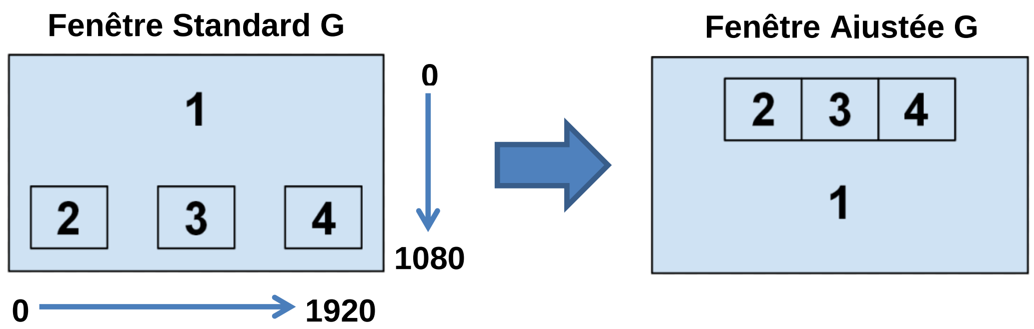
L'exemple montre **Window A** sélectionné, de sorte que l'entrée sélectionnée pour Channel 1 s'affiche.

Window E – Les entrées sélectionnées sous Channels 1 – 4 s'affichent dans une grille 2 x 2.



Window F – L'entrée sélectionnée sous Channel 4 s'affiche sur la moitié droite de l'écran, les entrées sélectionnées pour Channels 1 – 3 s'affichent dans la moitié gauche de l'écran.





		Standard	Ajustée
Channel 1	**Horizontale**	0000	0000
	Verticale	0000	0000
Channel 2	**Horizontale**	0105	0210
	Verticale	0700	0120
Channel 3	**Horizontale**	0710	0710
	Verticale	0700	0120
Channel 4	**Horizontale**	1315	1210
	Verticale	0700	0120

Chromakey

Cette fonction spécifique est conçue pour un recouvrement image sur image. Elle fonctionne en utilisant Channel 1 comme fond d'écran et Channel 2 comme couche supérieure. La couleur de la couche supérieure de Channel 2 est généralement unique, elle pourra être retirée simplement au niveau du menu OSD. Les paramètres RGB pour la vidéo de Channel 2 peuvent être ajustés pour déterminer la transparence afin de rendre Channel 1 visible. Lorsque les entrées 1 ou 2 n'ont pas de source connectée un message d'alerte apparaitra dans l'OSD.

Contrôle RS-232, Telnet & OSD

Protocoles RS-232

HDMI PiP Switch	
PIN	**Affectation**
1	NC
2	Tx
3	Rx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Contrôle distant	
PIN	**Affectation**
1	NC
2	Rx
3	Tx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Baud Rate	115200bps
Data Bit	8
Parity	None
Flow Control	None
Stop Bit	1

Commandes RS-232 & Telnet

Utilisez TCP/IP (Port 23) pour la communication Telnet.

Toutes les commandes sont sensibles à la casse et ne seront exécutées qu'après un retour chariot.

Davantage de détails sur Ethernet Telnet / télécommande / RS232

Merci de lire les détails d'utilisation dans la partie anglaise du manuel.

Commande	Action
POW000	OFF
POW001	ON
WND001	Change vers Window A
WND002	Change vers Window B
WND003	Change vers Window C
WND004	Change vers Window D
WND005	Change vers Window E
WND006	Change vers Window F
WND007	Change vers Window G
WND008	Change vers Window H
CH1001	Change Channel 1 vers Source 1
CH1002	Change Channel 1 vers Source 2
CH1003	Change Channel 1 vers Source 3
CH1004	Change Channel 1 vers Source 4
CH2001	Change Channel 2 vers Source 1
CH2002	Change Channel 2 vers Source 2
CH2003	Change Channel 2 vers Source 3
CH2004	Change Channel 2 vers Source 4
CH3001	Change Channel 3 vers Source 1
CH3002	Change Channel 3 vers Source 2
CH3003	Change Channel 3 vers Source 3
CH3004	Change Channel 3 vers Source 4
CH4001	Change Channel 4 vers Source 1
CH4002	Change Channel 4 vers Source 2
CH4003	Change Channel 4 vers Source 3
CH4004	Change Channel 4 vers Source 4
MUT000	Mute Off
MUT001	Mute On
FAD000	Fade In-Out Off
FAD000	Fade In-Out Off

Commande	Action
FAD001	Fade In-Out On
AUD001	Change Sortie Audio vers Source 1
AUD002	Change Sortie Audio vers Source 2
AUD003	Change Sortie Audio vers Source 3
AUD004	Change Sortie Audio vers Source 4
CHR000	Fonction Chromakey Off
CHR001	Fonction Chromakey On
MIR000	Fonction Mirror Off
MIR001	Fonction Mirror On
ROT000	Fonction Rotation Off
ROT001	Fonction Rotation R
ROT002	Fonction Rotation L
ROT003	Fonction Rotation Up-Side Down
SFA001	Sauve format fenêtre vers FAV 1*****
SFA002	Sauve format fenêtre FAV 2*****
SFA003	Sauve format fenêtre FAV 3*****
SFA004	Sauve format fenêtre FAV 4*****
RFA001	Rappel format de FAV 1
RFA002	Rappel format de FAV 2
RFA003	Rappel format de FAV 3
RFA004	Rappel format de FAV 4
IO1000	Channel 1 Image Off
IO1001	Channel 1 Image On
IO2000	Channel 2 Image Off
IO2001	Channel 2 Image On
IO3000	Channel 3 Image Off
IO3001	Channel 3 Image On
IO4000	Channel 4 Image Off
IO4001	Channel 4 Image On

*****Ne fonctionne pas lorsque Window A – D sont choisis

Menu On-Screen-Display (OSD)

Main Menu	1st Layer	2nd Layer	3rd Layer
Image Adjust (règlage image)	Brightness Ajustement (règlage luminosité)	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset (reset valeur)	
		Menu Exit (sortie menu)	
	Contrast Adjust (règlage contraste)	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset (reset valeur)	
		Menu Exit (sortie menu)	
	Hue Adjust (règlage teinte)	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset (reset valeur)	
		Menu Exit (sortie menu)	
	Saturation	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset (reset valeur)	
		Menu Exit (sortie menu)	
	Picture Reset (reset image)		
	Menu Exit (sortie menu)		
Window Setup (paramètres fenêtre)	Channel 1 Select	Size (taille – où Width= largeur & Height= hauteur)	CH 1 Wxxx Hxxx
			Width Unit (unité)
			Width Ten (dizaine)
			Width Hundred (cent.)
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 1 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off (sortie image)	
		Window Reset (reset fenêtre)	
		Menu Exit	
	Channel 2 Select	Size (taille)	CH 2 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit

Main Menu	1st Layer	2nd Layer	3rd Layer
Window Setup (Suite)	Chanel 2 Select (suite)		Height Ten
			Height Hundred
		Position	CH 2 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off (sortie image)	
		Window Reset (reset fenêtre)	
		Menu Exit(sortie menu)	
	Channel 3 Select	Size (taille)	CH 3 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 3 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off (sortie image)	
		Window Reset (reset fenêtre)	
		Menu Exit (sortie menu)	
	Channel 4 Select	Size (taille)	CH 4 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 4 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off (sortie image)	
		Window Reset (reset fenêtre)	
		Menu Exit (sortie menu)	
	FAV. Store	FAV 1 Store On/Off/OK	
		FAV 2 Store On/Off/OK	
		FAV 3 Store On/Off/OK	
		FAV 4 Store On/Off/OK	

Main Menu	1st Layer	2nd Layer	3rd Layer
Window Setup (Suite)	FAV. Recall (rappel favoris)	FAV 1 Recall On/Off/OK	
		FAV 2 Recall On/Off/OK	
		FAV 3 Recall On/Off/OK	
		FAV 4 Recall On/Off/OK	
	Menu Exit (sortie menu)		
Window Convert (conversion fenêtre)	Channel 1 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset (reset fenêtre)	
		Menu Exit	
	Channel 2 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset (reset fenêtre)	
		Menu Exit	
	Channel 3 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset (reset fenêtre)	
		Menu Exit (sortie menu)	
	Channel 4 Convert	Mirror On/Off (miroir)	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset (reset fenêtre)	
		Menu Exit (sortie menu)	
Chromakey Setup (param. Chromakey)	Minimum pour R 000 - 255		
	Maximum pour R 000 – 255		
	Minimum pour G 000 - 255		
	Maximum pour G 000 – 255		
	Minimum pour B 000 - 255		
	Maximum pour B 000 – 255		
	Switch On/Off		
	Menu Exit (sortie menu)		
Ethernet Setup (param. Ethernet)	IP Mode	Static/DHCP	
	Static Set	IP/Mask/Gate	
	Byte 1 High	XXX	000 – 255
	Byte 2	XXX	000 – 255
	Byte 3	XXX	000 – 255
	Byte 4	XXX	000 – 255
	Re-Link	Yes/No (Oui/Non)	
	Exit		
	Static/DHCP IP	Linked/Not Linked	
	IP	IP/Mask/Gate	
	Mask	XXX.XXX.XXX.XXX	
	Gate	XXX.XXX.XXX.XXX	
	Mac	XXX.XXX.XXX.XXX	
Sys Reset	Yes/No		
Information	FW/Version		
Menu Exit			

Introduzione

Grazie per aver acquistato il Processore Video LINDY HDMI 4x1 PiP. Questo dispositivo consente di integrare i segnali video provenienti da 4 differenti sorgenti video in un singolo flusso video visualizzabile su un solo monitor in configurazione Multi-View, Picture in Picture e Overlay (Chromakey).

Questo prodotto è stato progettato per garantire la massima flessibilità ed è adattabile a diverse applicazioni come:

- Pannelli Pubblicitari
- Presentazioni
- Broadcasting & Controllo
- Sorveglianza & Controllo
- Sale Conferenze & Meeting Room

Contenuto della confezione

- Processore Video HDMI 4x1 PiP
- Telecomando IR
- Alimentatore Multi-Country 12V 3A (UK/EU/US/AUS)
- CD con Driver
- Questo manuale

Caratteristiche

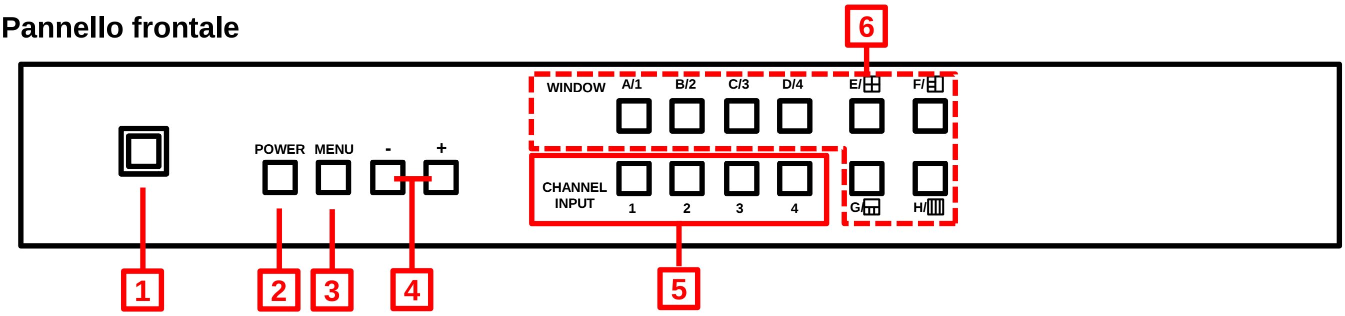
- Consente di visualizzare 4 sorgenti HDMI su un singolo monitor HD in 4 modalità differenti:
  - Modalità PiP: Picture in Picture
  - Modalità Multi-Window: Visualizza 2 o 4 sorgenti contemporaneamente
  - Modalità Overlay: Picture On Picture con Chromakey
- Commutazione rapida tra le varie sorgenti HDMI
- Dimensione canale e regolazione posizione
- Selezione del canale audio indipendente
- Controllabile da pannello frontale, telecomando, RS-232 e Telnet
- Contrasto, luminosità, saturazione e tonalità colore regolabili
- Funzione Memory per memorizzare 4 configurazioni utente
- Può essere utilizzato con gli Extender HDMI LINDY per raggiungere schermi remoti

Specifiche

- Porte input: 4 x HDMI Femmina
- Risoluzioni supportate in input: 480i – 1080p
- Porte output: 1 x HDMI Femmina
- Risoluzione di Output: 1080p
- Supporta Audio: LPCM 2CH, 6CH, 8CH, AC3, DTS, Dolby Digital Plus, Dolby TrueHD & DTS-HD
- Porte di Controllo: RJ45 (Telnet) & Seriale 9 Poli Maschio (RS-232)
- Larghezza di banda Video: 225MHz/6.75Gbps
- Potenza assorbita: 15W
- Peso: 2.95 kg
- Dimensioni: 436x247x44mm (LxPxA)

Panoramica & Utilizzo

Pannello frontale



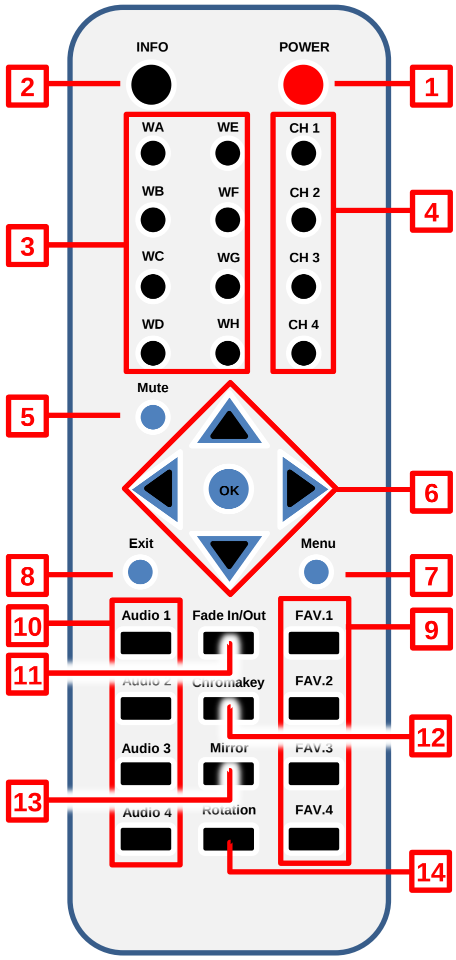
1. **Ricevitore IR**
   Riceve i segnali IR dal telecomando fornito a corredo
2. **Power**
   Accende e spegne lo switch (On/Off)
3. **Menu**
   - Premere per visualizzare il menù OSD
   - All'interno del menù OSD premetelo per effettuare una selezione
4. **Pulsanti -/+**
   Usate questi pulsanti per muovervi su e giù nel menù OSD
5. **Selettori Channel Input (1 – 4)**
   - Utilizzate questi pulsanti per commutare in sequenza fra le varie sorgenti per ciascun canale; utilizzate il pulsante 1 per controllare il canale 1, il 2 per il canale 2 e così via. use Per esempio selezionando il canale 1 la sorgente selezionata inizialmente è la numero 1. Premendo il tasto Channel Input 1 questo commuterà sulla sorgente 2; premendo ancora lo stesso tasto commuterete sulla 3 e poi sulla 4 ed infine tornerete alla 1.
6. **Pulsanti Window (A – H)**
   - Window A – Verrà visualizzata solo la sorgente connessa al canale 1
   - Window B – Verrà visualizzata solo la sorgente connessa al canale 2
   - Window C – Verrà visualizzata solo la sorgente connessa al canale 3.
   - Window D – Verrà visualizzata solo la sorgente connessa al canale 4
   - Window E – Le sorgenti connesse ai canali da 1 a 4 verranno visualizzate in una griglia 2 x 2
   - Window F – La sorgente selezionata per il canale 4 verrà visualizzata nella metà destra dello schermo. Le altre sorgenti selezionate per i canali da 1 a 3 verranno visualizzate nella metà sinistra dello schermo.
   - Window G – La sorgente selezionata per il canale 1 verrà visualizzata a pieno schermo con le altri sorgenti selezionate per i canali da 2 a 4 disposte in modalità sovrapposta (Picture in Picture) nella parte bassa dello schermo.
   - Window H – Le sorgenti selezionate per i canali da 1 a 4 verranno visualizzate in una griglia 4 x 1

Pannello Posteriore



1. **HDMI In 1 – 4**
   Collegate a questi ingressi le vostre sorgenti HDMI come PC, Blu-ray ecc..
2. **HDMI Out**
   Collegate il vostro schermo HDMI a questo porta
3. **Control**
   Collegate questa porta alla vostra rete Ethernet per utilizzare il controllo via Telnet
4. **USB Service Only**
   Porta riservata al fabbricante
5. **RS-232**
   Per collegate via seriale PC/Notebook o una unità Remote Control.
6. **DC 12V**
   Porta di alimentazione a 12V per l'alimentatore fornito a corredo

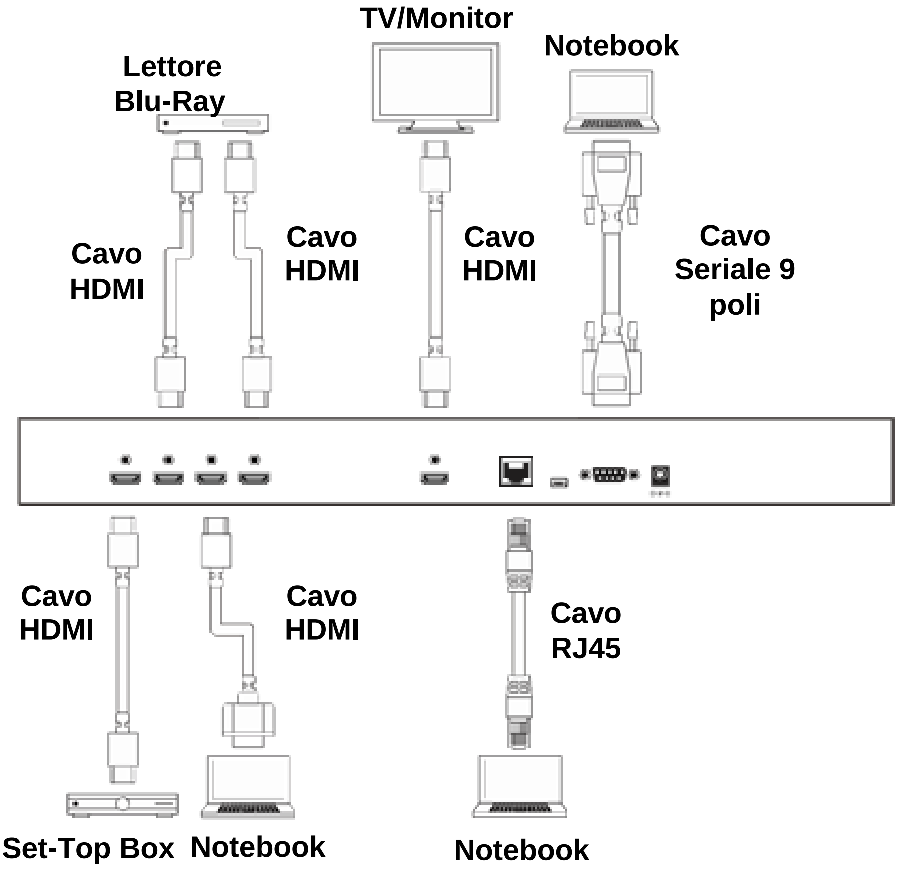
Telecomando



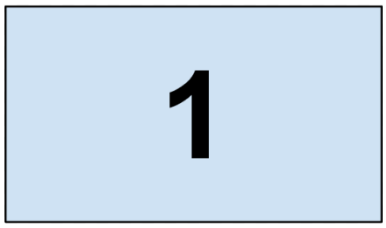
1. **Power** Accende e spegne l'apparato (on/off)
2. **Info**
   Premere per visualizzare l'impostazione attuale dell'uscita dello switch.
3. **Window Mode (A – H)**
   Stesse funzioni dei pulsanti sul pannello frontale
4. **Channel Input (1 – 4)**
   Stesse funzioni dei pulsanti sul pannello frontale
5. **Mute**
   Disattiva e riattiva la riproduzione audio.
6. **Pulsanti Navigazione/Selezione**
   Da utilizzare per muoversi nel menù OSD ed effettuare selezioni.
7. **Menu** Visualizza il menù OSD
8. **Exit** Esce dal menù OSD
9. **FAV. (1 – 4)**
   Richiama le impostazioni salvate nella rispettiva posizione
10. **Audio Selection**
    Seleziona la sorgente audio fra i 4 input
11. **Fade In/Out**
    Attiva e disattiva la funzione Fade-in-out
12. **Chromakey***
    Entra in modalità Chroma dove il Canale 1 è lo sfondo e il Canale 2 è l'immagine in primo piano
13. **Mirror***
    Visualizza un immagine speculare della sorgente selezionata
14. **Rotate***
    Ruota le sorgenti: 90^0 a Destra, 90^0 a sinistra e 180^0 (Flip)

***Queste funzioni sono disponibili solo nelle modalità Window A – D**

Schema di Connessione



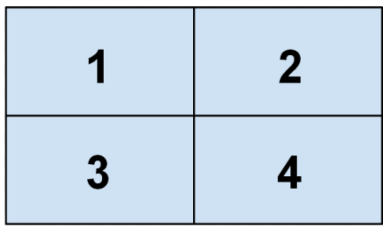
Modalità Uscita Video



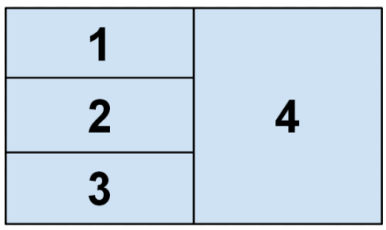
Window A – Verrà visualizzata la sorgente connessa al canale 1.
Window B – Verrà visualizzata la sorgente connessa al canale 2.
Window C – Verrà visualizzata la sorgente connessa al canale 3.
Window D – Verrà visualizzata la sorgente connessa al canale 4.

L’esempio mostra la modalità **Window A** con solo la sorgente connessa al Canale 1 visualizzata

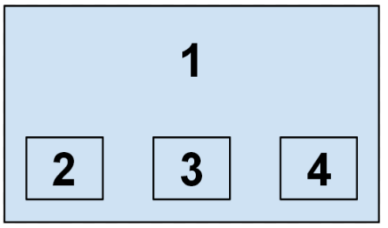
Window E – Le sorgente connesse ai Canali da 1 – 4 sono visualizzate in una griglia 2 x 2.



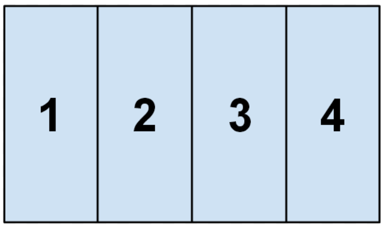
Window F – La sorgente selezionata per il canale 4 verrà visualizzata nella metà destra dello schermo. Le altre sorgenti selezionate per i canali da 1 a 3 verranno visualizzate nella metà sinistra dello schermo.



Window G – La sorgente selezionata per il canale 1 verrà visualizzata a pieno schermo con le altri sorgenti selezionate per i canali da 2 a 4 disposte in modalità sovrapposta (Picture in Picture) nella parte bassa dello schermo



Window H – Le sorgenti selezionate per i canali da 1 a 4 verranno visualizzate in una griglia 4 x 1

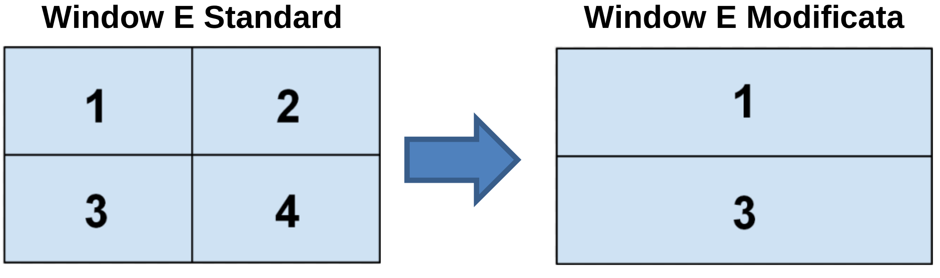


Regolazione delle modalità Multi-Window

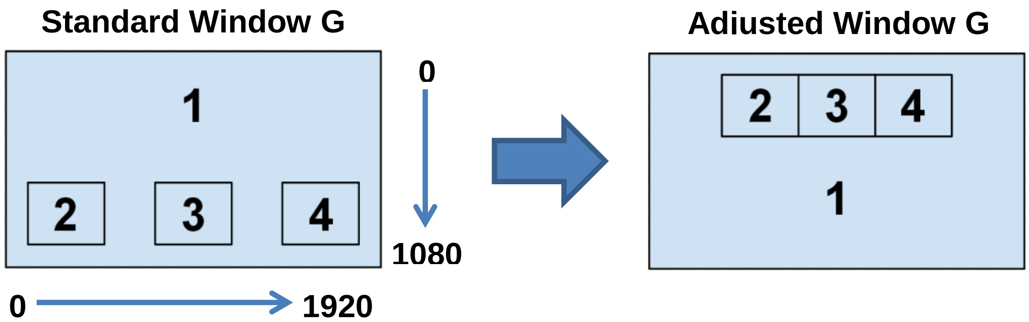
In ogni modalità multi-window (E-H) descritta sopra è possibile regolare la dimensione e la posizione di ogni finestra e anche disattivare la visualizzazione di ciascuna finestra. Per iniziare selezionate la modalità più vicina alla configurazione che desiderate e poi entrate nel menù utilizzando il telecomando. Ora selezionate l'opzione Windows Setup e vi sarà data permesso di regolare le impostazioni di ciascun canale e la possibilità di salvare o richiamare le configurazioni preferite.

Per regolare la disposizione cominciate selezionando un canale evidenziandolo e premendo OK. Potrete così impostare dimensioni e posizione della finestra utilizzando i menù Size e Position, mentre per attivare o disattivare il canale dovrete utilizzare il menù Image Output. La regolazione può essere fatta per singoli pixel o per gruppi di 10 e 100 pixel. Se sbagliate qualcosa e volete annulla la regolazione è sufficiente selezionare la voce Window Reset.

Per esempio utilizzando uno schermo 1080p e partendo con la modalità Window E e regolando la larghezza dei canali 1 e 3 a 1920 pixel di larghezza, 540 pixel di altezza e spegnendo i canali 2 e 4 potrete ottenere la configurazione che potete vedere sotto :



Ricordate che il riferimento orizzontale della posizione è a partire dal lato sinistro della schermo crescendo verso destra. La posizione Verticale è invece a partire dall'altro verso il basso. Il seguente esempio mostra la disposizione standard della modalità Window G e una versione modificata ottenuta variando i valori di ogni canale.



		Standard	Modificata
Canale 1	**Orizzontale**	0000	0000
	Verticale	0000	0000
Canale 2	**Orizzontale**	0105	0210
	Verticale	0700	0120
Canale 3	**Orizzontale**	0710	0710
	Verticale	0700	0120
Canale 4	**Orizzontale**	1315	1210
	Verticale	0700	0120

Chromakey

Questa funzione speciale è progettata per la visualizzazione sovrapposta delle immagini (Picture On Picture). Essa è realizzata utilizzando la sorgente del Canale 1 come sfondo e ponendo quella del Canale 2 in primo piano. Il colore di sfondo principale del Canale 2 può essere facilmente rimosso utilizzando il menù OSD. Le impostazioni RGB per il Canale 2 possono essere regolate per meglio determinare dove comparirà la trasparenza che renderà visibile il Canale 1 sullo sfondo. Nel caso gli ingressi 1 o 2 non abbiano sorgenti collegate comparirà un avviso nel menù OSD.

Controllo via RS-232, Telnet & OSD

Protocolli RS-232

Switch HDMI PiP	
PIN	**Segnale**
1	NC
2	Tx
3	Rx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Controllo Remoto	
PIN	**Segnale**
1	NC
2	Rx
3	Tx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Baud Rate	115200bps
Data Bit	8
Parità	None
Flow Control	None
Stop Bit	1

Comandi RS-232 & Telnet

Per la connessione via Telnet utilizzate la porta TCP/IP 23.
Tutti i comandi sono case–sensitive (distinguono fra maiuscole e minuscole) e non verranno eseguiti se non sono seguiti da Invio (CR).

Per informazioni sul funzionamento dell'interfaccia Telnet e Web vi preghiamo di far riferimento alla sezione in inglese di questo manuale.

Comando	Azione
POW000	OFF
POW001	ON
WND001	Commuta su modalità Window A
WND002	Commuta su modalità Window B
WND003	Commuta su modalità Window C
WND004	Commuta su modalità Window D
WND005	Commuta su modalità Window E
WND006	Commuta su modalità Window F
WND007	Commuta su modalità Window G
WND008	Commuta su modalità Window H
CH1001	Commuta Canale 1 su Sorgente 1
CH1002	Commuta Canale 1 su Sorgente 2
CH1003	Commuta Canale 1 su Sorgente 3
CH1004	Commuta Canale 1 su Sorgente 4
CH2001	Commuta Canale 2 su Sorgente 1
CH2002	Commuta Canale 2 su Sorgente 2
CH2003	Commuta Canale 2 su Sorgente 3
CH2004	Commuta Canale 2 su Sorgente 4
CH3001	Commuta Canale 3 su Sorgente 1
CH3002	Commuta Canale 3 su Sorgente 2
CH3003	Commuta Canale 3 su Sorgente 3
CH3004	Commuta Canale 3 su Sorgente 4
CH4001	Commuta Canale 4 su Sorgente 1
CH4002	Commuta Canale 4 su Sorgente 2
CH4003	Commuta Canale 4 su Sorgente 3
CH4004	Commuta Canale 4 su Sorgente 4
MUT000	Mute Off
MUT001	Mute On
FAD000	Fade In-Out Off
FAD000	Fade In-Out Off

Comando	Azione
FAD001	Fade In-Out On
AUD001	Commuta Audio su Sorgente 1
AUD002	Commuta Audio su Sorgente 2
AUD003	Commuta Audio su Sorgente 3
AUD004	Commuta Audio su Sorgente 4
CHR000	Funzione Chromakey Off
CHR001	Funzione Chromakey On
MIR000	Funzione Mirror Off
MIR001	Funzione Mirror On
ROT000	Funzione Rotation Off
ROT001	Funzione Rotation R
ROT002	Funzione Rotation L
ROT003	Funzione Rotation Up-Side Down
SFA001	Salva Impost. Finestre su FAV 1*****
SFA002	Salva Impost. Finestre su FAV 2*****
SFA003	Salva Impost. Finestre su FAV 3*****
SFA004	Salva Impost. Finestre su FAV 4*****
RFA001	Richiama Impost. Finestre da FAV 1
RFA002	Richiama Impost. Finestre da FAV 2
RFA003	Richiama Impost. Finestre da FAV 3
RFA004	Richiama Impost. Finestre da FAV 4
IO1000	Immagine Canale 1 Off
IO1001	Immagine Canale 1 On
IO2000	Immagine Canale 2 Off
IO2001	Immagine Canale 2 On
IO3000	Immagine Canale 3 Off
IO3001	Immagine Canale 3 On
IO4000	Immagine Canale 4 Off
IO4001	Channel 4 Image On

***** Non utilizzabile in modalità Window A-D

On-Screen-Display (OSD) Menu

Main Menu	1° Livello	2° Livello	3° Livello
Image Adjust *(Regolazione Immagine)*	Brightness Adjust *(Regolazione Luminosità)*	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset	
		Menu Exit	
	Contrast Adjust *(Regolazione Contrasto)*	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset	
		Menu Exit	
	Hue Adjust *(Regolazione Tonalità)*	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset	
		Menu Exit	
	Saturation *(Regolazione Saturazione)*	CH 1	0 – 100 (50)
		CH 2	0 – 100 (50)
		CH 3	0 – 100 (50)
		CH 4	0 – 100 (50)
		Value Reset	
		Menu Exit	
	Picture Reset		
	Menu Exit		
Window Setup	Channel 1 Select	Size	CH 1 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 1 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off	
		Window Reset	
		Menu Exit	
	Channel 2 Select	Size	CH 2 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit

Main Menu	1° Livello	2° Livello	3° Livello
Window Setup (Continued)	Chanel 2 Select (Continued)		Height Ten
			Height Hundred
		Position	CH 2 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off	
		Window Reset	
		Menu Exit	
	Channel 3 Select	Size	CH 3 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 3 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off	
		Window Reset	
		Menu Exit	
	Channel 4 Select	Size	CH 4 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH 4 Wxxx Hxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output On/Off	
		Window Reset	
		Menu Exit	
	FAV. Store	FAV 1 Store On/Off/OK	
		FAV 2 Store On/Off/OK	
		FAV 3 Store On/Off/OK	
		FAV 4 Store On/Off/OK	

Main Menu	1° Livello	2° Livello	3° Livello
Window Setup (Continued)	FAV. Recall	FAV 1 Recall On/Off/OK	
		FAV 2 Recall On/Off/OK	
		FAV 3 Recall On/Off/OK	
		FAV 4 Recall On/Off/OK	
	Menu Exit		
Window Convert	Channel 1 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset	
		Menu Exit	
	Channel 2 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset	
		Menu Exit	
	Channel 3 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset	
		Menu Exit	
	Channel 4 Convert	Mirror On/Off	
		Fade In-Out On/Off	
		Rotation R90/L90/Up-side Down 180/Off	
		Window Reset	
		Menu Exit	
Chromakey Setup	Minimum for R 000 - 255		
	Maximum for R 000 – 255		
	Minimum for G 000 - 255		
	Maximum for G 000 – 255		
	Minimum for B 000 - 255		
	Maximum for B 000 – 255		
	Switch On/Off		
	Menu Exit		
Ethernet Setup	IP Mode	Static/DHCP	
	Static Set	IP/Mask/Gate	
	Byte 1 High	XXX	000 – 255
	Byte 2	XXX	000 – 255
	Byte 3	XXX	000 – 255
	Byte 4	XXX	000 – 255
	Re-Link	Yes/No	
	Exit		
	Static/DHCP IP	Linked/Not Linked	
	IP	IP/Mask/Gate	
	Mask	XXX.XXX.XXX.XXX	
	Gate	XXX.XXX.XXX.XXX	
	Mac	XXX.XXX.XXX.XXX	
Sys Reset	Yes/No		
Information	FW/Version		
Menu Exit			

CE/FCC Statement

CE Certification

This equipment complies with the requirements relating to Electromagnetic Compatibility Standards EN55022/EN55024 and the further standards cited therein. It must be used with shielded cables only.
It has been manufactured under the scope of RoHS compliance.

CE Konformitätserklärung

Dieses Produkt entspricht den einschlägigen EMV Richtlinien der EU für IT-Equipment und darf nur zusammen mit abgeschirmten Kabeln verwendet werden.
Diese Geräte wurden unter Berücksichtigung der RoHS Vorgaben hergestellt.
Die formelle Konformitätserklärung können wir Ihnen auf Anforderung zur Verfügung stellen

FCC Certification

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.
This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

LINDY Herstellergarantie – Hinweis für Kunden in Deutschland

LINDY gewährt für dieses Produkt über die gesetzliche Regelung in Deutschland hinaus eine zweijährige Herstellergarantie ab Kaufdatum. Die detaillierten Bedingungen dieser Garantie finden Sie auf der LINDY Website aufgelistet bei den AGBs.

Recycling Information

WEEE (Waste of Electrical and Electronic Equipment),
Recycling of Electronic Products

Europe, United Kingdom
In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.
Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.

Germany / Deutschland
Die Europäische Union hat mit der WEEE Direktive Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt. Dieses Gesetz verbietet das Entsorgen von entsprechenden, auch alten, Elektro- und Elektronikgeräten über die Hausmülltonne! Diese Geräte müssen den lokalen Sammelsystemen bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

France
En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique.
Chaque Etat membre de l’ Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d’application correspondant à l’élimination des déchets électriques ou électroniques de votre pays.

Italy
Nel 2006 l’unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate. Ogni stato membro dell’ EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.
Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

LINDY No 38130

2nd Edition, September 2014

www.lindy.com

Tested to Comply with
FCC Standards
For Home and Office Use!